Amendments t the Claims

1-5. (canceled)

6. (currently amended) An integrating sphere, comprising

a spherical volume having walls of a material for reflecting light, a light inlet and a light outlet, and

wherein a diameter axis bounds two hemispheres of the spherical volume, the light inlet is in at least one hemisphere of the spherical volume, the light outlet is in the other hemisphere of the spherical volume, and

relative to a diameter axis perpendicular to the first mentioned diameter axis, the light outlet is offset; and

wherein the light inlet, light outlet and walls are cooperatively related such that of the light entering the spherical volume via the light inlet, substantially all the light passing to the light outlet is via multiple reflections from the walls of the spherical volume.

7. (canceled)

8. (currently amended) [~~The~~] An integrating sphere [~~of claim 6~~], comprising

a spherical volume having walls of a material for reflecting light, a light inlet and a light outlet, and

wherein a diameter axis bounds two hemispheres of the spherical volume, the light inlet is in one hemisphere of the spherical volume, the light outlet is in the other hemisphere of the spherical volume, and

the light outlet has an axis, and the axis is at an angle of about 35 degrees relative to a [~~line parallel~~] diameter axis perpendicular to the first mentioned [~~axis offset from a~~] diameter axis of the spherical volume.

9. (currently amended) An integrating sphere, comprising

a spherical volume having walls of a material for reflecting light, a light inlet and a light outlet, and

wherein a diameter axis bounds two hemispheres of the spherical volume, the light inlet is in [~~at least~~] one hemisphere of the spherical volume, the light outlet is in the other hemisphere of the spherical volume,

the light inlet has an axis that is generally parallel to and offset from the diameter axis; and

relative to a diameter axis perpendicular to the first mentioned diameter axis, the light outlet is offset.

10. (original) The integrating sphere of claim 9, wherein the light outlet has an axis, and the light outlet axis is non-perpendicular to the first mentioned diameter axis.

11. (currently amended) The integrating sphere of claim [~~10~~] 9, wherein the light outlet axis is at an angle of about 35 degrees relative to [~~a line parallel~~] the diameter axis perpendicular to the first mentioned [~~axis offset from a~~] diameter axis of the spherical volume.

12-18. (canceled)

19. (new) The integrating sphere of claim 6, wherein substantially all the light passing to the light outlet does so without impingement on an object external of the spherical volume.

20. (new) The integrating sphere of claim 6, wherein the light inlet is tapered along at least part of its length from an inlet end to an outlet end from which light enters the spherical volume.

21. (new) The integrating sphere of claim 20, wherein light provided the light inlet is provided in a conical shape, and the shape of the taper is at least approximately the same shape as such conical shape.

22. (new) The integrating sphere of claim 20, wherein a cone formed by the intersection of a wall of the inlet and an axis of the inlet has an included angle of about 20 degrees to about 30 degrees.

23. (new) The integrating sphere of claim 6, wherein the light outlet has a substantially truncated conical shape with larger a inlet portion than outlet portion from which light exits the spherical volume.

24. (new) The integrating sphere of claim 6, wherein the spherical volume has a diameter of less than about 1.5 inches.

25. (new) The integrating sphere of claim 6, wherein the spherical volume has a diameter of less than about 1.0 inch.

26. (new) The integrating sphere of claim 8, wherein the light inlet is tapered along at least part of its length from an inlet end to an outlet end from which light enters the spherical volume.

27. (new) The integrating sphere of claim 26, wherein light provided the light inlet is provided in a conical shape, and the shape of the taper is at least approximately the same shape as such conical shape.

28. (new) The integrating sphere of claim 26, wherein a cone formed by the intersection of a wall of the inlet and an axis of the inlet has an included angle of about 20 degrees to about 30 degrees.

29. (new) The integrating sphere of claim 8, wherein the light outlet has a substantially truncated conical shape with larger a inlet portion than outlet portion from which light exits the spherical volume.

30. (new) The integrating sphere of claim 8, wherein the spherical volume has a diameter of less than about 1.5 inches.

31. (new) The integrating sphere of claim 8, wherein th spherical volume has a diameter of less than about 1.0 inch.

32. (new) The integrating sphere of claim 9, wherein the light inlet is spaced from the diameter axis a distance of about one-third to about two-thirds of the radial dimension of the spherical volume.

33. (new) The integrating sphere of claim 9, wherein the light inlet is tapered along at least part of its length from an inlet end to an outlet end from which light enters the spherical volume.

34. (new) The integrating sphere of claim 33, wherein light provided the light inlet is provided in a conical shape, and the shape of the taper is at least approximately the same shape as such conical shape.

35. (new) The integrating sphere of claim 33, wherein a cone formed by the intersection of a wall of the inlet and an axis of the inlet has an included angle of about 20 degrees to about 30 degrees.

36. (new) The integrating sphere of claim 9, wherein the light outlet has a substantially truncated conical shape with larger a inlet portion than outlet portion from which light exits the spherical volume.

37. (new) The integrating sphere of claim 9, wherein the spherical volume has a diameter of less than about 1.5 inches.

38. (new) The integrating sphere of claim 9, wherein the spherical volume has a diameter of less than about 1.0 inch.

39. (new) An integrating sphere for use in measuring input light, comprising:
a spherical volume having walls of a material for reflecting light;

a light inlet receiving input light and a light outlet directing light from the sph rical volume for detection; and

wherein the light inlet, light outlet and walls cooperate such that substantially all light passing to the light outlet for detection is directly from reflection by the walls of the spherical volume.

40. (new) The integrating sphere of claim 39, wherein substantially all the light passing to the light outlet does so without impingement on an object external of the spherical volume.

41. (new) The integrating sphere of claim 39, wherein the sphere comprises a single light inlet.

42. (new) The integrating sphere of claim 41, wherein the sphere comprises a single light outlet.

43. (new) The integrating sphere of claim 39, wherein the light inlet is tapered along at least part of its length from an inlet end to an outlet end from which light enters the spherical volume.

44. (new) The integrating sphere of claim 43, wherein light provided the light inlet is provided in a conical shape, and the shape of the taper is at least approximately the same shape as such conical shape.

45. (new) The integrating sphere of claim 43, wherein a cone formed by the intersection of a wall of the inlet and an axis of the inlet has an included angle of about 20 degrees to about 30 degrees.

46. (new) The integrating sphere of claim 39, wherein the light outlet has a substantially truncated conical shape with larger a inlet portion than outlet portion from which light exits the spherical volum .

47. (new) The integrating sphere of claim 39, wher in the spherical volume has a diameter of less than about 1.5 inches.

48. (new) The integrating sphere of claim 39, wherein the spherical volume has a diameter of less than about 1.0 inch.

49. (new) A method of measuring light using an integrating sphere having a single light outlet in one hemisphere and a light inlet in the other hemisphere, the method comprising:

directing input light into the integrating sphere via a non-diameter path in one hemisphere of the integrating sphere for multiple reflections in both hemispheres of the integrating sphere; and

directing the multiply reflected light to a detection device via the single light outlet.